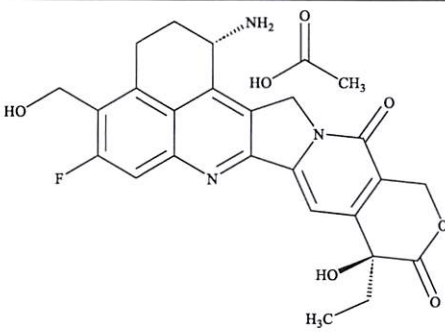


Certificate of Analysis



Certificate No.: 20260327002

Date: March 27, 2026

Retest date: March 23, 2029

Compound Name:	Exatecan Metabolite 1 (UM-1) Acetate	
Synonyms:	(1S,9S)-1-amino-9-ethyl-5-fluoro-9-hydroxy-4-(hydroxymethyl)-1,2,3,9,12,15-hexahydro-10H,13H-benzo[de]pyrano[3',4':6,7]indolizino[1,2-b]quinoline-10,13-dione, acetic acid (1:1)	
TLC Catalogue Number:	E-244003	
CAS Number:	N/A	
Alternate CAS Number:	347851-88-1 (free base)	
Molecular Weight:	451.45 60.05	
Molecular Formula:	C ₂₄ H ₂₂ FN ₃ O ₅ · C ₂ H ₄ O ₂	
Source:	TLC Pharmaceutical Standards	
Source Lot No.:	7384-001A4	
Storage Conditions:	Store at 2-8 °C	
Solubility:	DMSO, DMF	

Test Description	Specifications	Results
Visual Description	Green solid	Conforms
Identification		
IR	Conforms to structure	Conforms
MS	Conforms to structure	Conforms
¹ H NMR	Conforms to structure	Conforms
Purity (HPLC)	Not less than 90.0%	95.8%
Impurity (HPLC)	RT 9.37, 1.20%; RT 12.89, 0.68%; RT 16.23, 0.97%	
Water Content (KF)	N/A	0.7%
Optical Rotation	N/A	[α] _D ^{25.0} (c=0.30, DMSO): +42.9°
Residual Solvents (NMR)	0.4% dimethylformamide and 1.6% acetic acid	
Assay (%)	Not less than 85.0%	93.2%
Recommendation:	Release.	

Name	Department	Signature	Date
Reviewed and approved by:	Quality Control		03/27/2026
Approved by:	Quality Assurance		03/27/2026

Attachments: Peak Attribution Table, Assay Calculation, HPLC, IR, MS and NMR spectra.